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Terrorist threats to energy security

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Mr. Chairman, Members of the Committee, my name is Gal Luft. I am executive director of the Institute for the Analysis of Global Security (IAGS), an energy security think tank which follows and analyzes the relations between energy and our national and international security. I would like to thank you for inviting me to brief you on the issue of terrorist threats to energy security.

Since September 11 it has become increasingly apparent that terrorist groups have identified the world energy system as the Achilles heel of the West. Throughout the world jihadist terrorists attack oil and gas installations almost on a daily basis with significant impact on the oil market.

Goals

What makes oil interesting for terrorists are the unique conditions that have been created in the oil market in recent years. Until recently, the oil market had sufficient wiggle room to deal with occasional supply disruptions. Such disruptions could be offset by the spare production capacity owned by some OPEC producers, chiefly Saudi Arabia. This spare capacity has been the oil market's main source of liquidity. But due to the sudden growth in demand in developing Asia this liquidity mechanism has eroded from 7mbd in 2002 which constituted 9% of the market to about 1.5 mbd today, less than 2%. As a result, the oil market today resembles a car without shock absorbers: the tiniest bump on the road can send a passenger to the ceiling. Without liquidity, the only one mechanism left to bring the market to equilibrium is rapid and uncontrolled price increases.

This reality plays into the hands of terrorists who want to hurt the Western economy. The war on radical Islam is often described as an ideological or even religious war. But for the jihadists it is also an economic war. Osama bin Laden's strategy is based on the conviction that the way to bring down a superpower is to weaken its economy through protracted guerilla warfare. We "bled Russia for ten years until it went bankrupt and was forced to withdraw [from Afghanistan] in defeat. [...] We are continuing in the same policy to make America bleed profusely to the point of bankruptcy," bin Laden boasted in his October 2004 videotape.

His logic, while based on faulty assumptions, is simple: To bring the U.S. to suffer a fate similar to that of the Soviet Union, the terrorists need to drain America's resources and bring it to the point it can no longer afford to preserve its military and economic dominance. As the U.S. loses standing in the Middle East, the jihadists can gain ground and remove from power regimes they view as corrupt and illegitimate while defeating other infidels who inhabit the land of Islam. One of the Islamists' methods to achieve this goal is to attack oil, which jihadists call "the provision line and the feeding to the artery of the life of the crusader's nation." Even though the Islamist goal of bankrupting the U.S. stretches the imagination, the fact that they strive for it means we must take it into account in planning a counter-strategy.

Striking pipelines, tankers, refineries and oil fields is easy and effective. Terrorists no longer need to come to the U.S. and wreak havoc in our cities. They can cause enormous economic damage by hitting our energy supply at the generating points, where they enjoy strong support on the ground. These attacks have already imposed a "fear premium" in the oil market of \$10-\$15. For the U.S., an importer of more than 11 million barrels a day, this fear premium alone costs \$40-\$60 billion a year. The cause and effect are not lost on terrorists. "We call our brothers in the battlefields to direct some of their great efforts towards the oil wells and pipelines," reads a jihadist website. "The killing of 10 American soldiers is nothing compared to the impact of the rise in oil prices on America and the disruption that it causes in the international economy."

Higher oil prices also mean a transfer of wealth of historical proportions from oil-consuming countries -- primarily the U.S. -- to the Muslim world, where three quarters of global oil reserves are concentrated. The windfall benefits jihadists as petrodollars trickle their way through charities and government handouts to madrassas and mosques.

Methods

The most popular targets are pipelines, through which about 40% of world's oil flows. They run over thousands of miles and across some of the most volatile areas in the world. Pipelines are very easily sabotaged. A simple explosive device can put a critical section of pipeline out of operation for weeks. This is why pipeline sabotage has become the weapon of choice of the insurgents in Iraq. The Institute for the Analysis of Global Security maintains a database of all attacks against energy facilities. According to the Institute's Iraq Pipeline Watch (www.iags.org/iraqpipelinewatch.htm) there have been more than 250 pipeline attacks in Iraq since President Bush declared the end of major hostilities in April 2003.

These attacks have strategic impact on U.S. efforts in Iraq. They undermined the prospects of Iraqi reconstruction by denying the Iraqi economy much needed oil revenues. They also have a corrosive influence on the morale of the Iraqis and their attitude toward the presence of U.S. forces in their country. Iraqis are growing increasingly vexed by the slow progress in the reconstruction effort and the inability of the government to guarantee a reliable supply of electricity, which is primarily derived from oil. Worse, the sabotage

campaign has created an inhospitable investment climate in Iraq and scared away oil companies that were supposed to develop its oil and gas industry.

Emulating the success of the saboteurs in Iraq, terrorists in many oil-producing countries have set their sights on and attacked pipelines and other oil installations in Sudan, Chechnya, India, Saudi Arabia, Pakistan, Turkey, Colombia, Nigeria, Azerbaijan, Indonesia and the Philippines.

Terror at sea

There is growing evidence that terrorists find the unpoliced sea to be their preferred domain of operation. Terrorist groups such as al Qaeda, Hezbollah, Jemaah Islamiyah, the Popular Front for the Liberation of Palestine-General Command, and Sri Lanka's Tamil Tigers have long sought to develop a maritime capability.

Today, over 60% of the world's oil and almost all of its liquefied natural gas is shipped on 3,500 tankers through a small number of 'chokepoints' – straits and channels narrow enough to be blocked, and vulnerable to piracy and terrorism. The most important chokepoints are the Strait of Hormuz, through which 13 million barrels of oil are moved daily, Bab el-Mandab, which connects the Red Sea to the Gulf of Aden and the Arabian Sea, and the Strait of Malacca, between Indonesia and Malaysia. Thirty percent of the world's trade and 80% of Japan's crude oil passes through the latter, including half of all sea shipments of oil bound for East Asia and two-thirds of global liquefied natural gas shipments. The Bosphorus, linking the Black Sea to the Mediterranean, is less than a mile wide in some areas and is one of the most threatened chokepoints. Ten percent of the 50,000 ships that pass through it each year are tankers carrying Russian and Caspian oil.

Most of the critical chokepoints are located in areas where Islamic fundamentalism is prevalent. The Strait of Hormuz is controlled by Iran; Bab el-Mandab is controlled by Yemen, the ancestral home of bin Laden. Part of the 500-mile long Strait of Malacca courses through Indonesia's oil rich province Aceh, inhabited by one of the world's most radical Muslim populations.

Many terror experts have expressed concern that al Qaeda might seize a ship or a boat or even a one-man submarine and crash it into a supertanker in one of the chokepoints. Were terrorists to attack such a vessel the resulting explosion and spreading stain of burning oil could shut down the channel with a profound impact on the oil market. Tankers are too slow and cumbersome to maneuver away from attackers; they have no protection and they have nowhere to hide. al Qaeda terrorists have demonstrated repeatedly their intent and ability to strike them. In January 2000 al Qaeda attempted to ram a boat loaded with explosives into the USS The Sullivans in Yemen. The attack was aborted when the boat sank under the weight of the explosives. Later, in October, al Qaeda suicide bomber in high-powered speedboat packed with explosives blew a hole in the USS Cole, killing 17 sailors. In June 2002, a group of al Qaeda operatives suspected of plotting raids on British and American tankers passing through the Strait of Gibraltar was arrested by the Moroccan government; and in October that year, the organization badly holed a French supertanker off the coast of Yemen. According to FBI Director

Robert Mueller "any number of [terror] attacks on ships...have been thwarted."

To make things worse, there are increasing signs of collaboration between terrorists and pirates. According to International Maritime Bureau (IMB), pirate attacks on ships have tripled in the last decade. Each year 350-400 piracy attacks take place worldwide in which hundreds of seafarers are being killed, assaulted, or kidnapped. The majority of the attacks take place in the Philippines, Indonesia, Bangladesh and Nigeria. Most of the ships attacked are oil and chemical tankers. Maritime security experts have repeatedly warned about the collusion between piracy and terror, voicing concerns that Islamist groups operating in these regions could capitalize on the disorder and target strategic chokepoints by placing a bomb on a supertanker or ramming a ship into one.

Mr. Chairman,

The threat against energy facilities worldwide is severe and not a day goes by without us being reminded of it. Governments, oil companies and pipeline operators are seeking to put in place mechanisms to reduce the impact of the scourge. They are forced to invest increasing sums of money to improve security in their oil installations. We are paying for this at the pump.

No doubt supply disruptions described above could drive oil prices further to where they are today and take a toll of our economy. But the impact of such disruptions is not likely to be long lasting. The average duration of the 14 supply disruptions as a result of accidents and internal political struggles of the past 55 years is 6 months with loss of no more than 2.5% of the market. Most pipelines and pumping stations can be repaired within few days or weeks. A blockage of a chokepoint by a burning tanker is not likely to last more than a couple of weeks. Once the disruption ends prices are likely to be gradually restored. It is important to remember that a loss of 4-5% of supply to the U.S. market can be offset by the 700mb Strategic Petroleum Reserve (SPR). At a rate of 1 million barrels per day the SPR can supply U.S. needs for more than a year and a half. The Energy Policy and Conservation Act (EPCA), which governs the usage of the SPR, allows for a limited drawdown for circumstances which constitute "a domestic or international energy supply shortage of significant scope or duration." In addition, simple behavioral changes which can be introduced in a time of emergency. According to the International Energy Agency a number of measures like sensible driving, car pooling, removal of excess weight, engine tuning, tire inflation, replacement of air filters and idling reduction of trucks and planes could provide substantial reductions in transport oil use quickly and cheaply. It has been demonstrated that a speed reduction of 12mph can reduce fuel consumption by approximately 20% and a tire inflation public awareness campaign could save approximately 3%.

But one scenario our economy cannot withstand is a major attack on one of Saudi Arabia's oil facilities. In addition to being holder of a quarter of the world's oil reserves holder of most of the world's spare production capacity Saudi Arabia is the only country in the world that has facilities that process more than 3mbd. Over half of Saudi Arabia's oil reserves are contained in just eight fields and about two-thirds of Saudi Arabia's crude

oil is processed in a single enormous facility called Abqaiq, 25 miles inland from the Gulf of Bahrain. On the Persian Gulf, Saudi Arabia has just two primary oil export terminals: Ras Tanura - the world's largest offshore oil loading facility, through which a tenth of global oil supply flows daily - and Ras al-Ju'aymah. On the Red Sea, a terminal called Yanbu is connected to Abqaiq via the 750-mile East–West pipeline.

The Saudi oil system is target rich and extremely vulnerable to terrorist acts. This is not only due to al Qaeda's strong presence in the kingdom and its ability to carry out coordinated attacks but also because of the number of strategic targets. A terrorist attack on each one of the hubs of the Saudi oil complex or a simultaneous attack on a few of them is not a fictional scenario. In summer 2002, a group of Saudis was arrested for involvement in a plot to sabotage Ras Tanura and pipelines connected to it. A single terrorist cell hijacking an airplane in Kuwait or Dubai and crashing it into Abqaiq or Ras Tanura, could turn the complex into an inferno. This could take up to 50% of Saudi oil off the market for at least six months and with it most of the world's spare capacity. Such an attack could be more economically damaging than a dirty nuclear bomb set off in New York City. Since September 11 it has become apparent that there is no shortage of suicide terrorists who are willing to sacrifice their lives for the sake of killing the infidel but recent events in Iraq and Saudi Arabia show that there are those who are also willing to give away their lives for the sake of denying us oil.

What can be done?

- The most effective way to address the scourge of sabotage is to confront terrorists wherever they are. By pursuing jihadists and separatist groups, denying them freedom of operation and destroying their infrastructure, we can reduce the number of attacks.
- International cooperation is also key. I am glad to report that in November, for the first time, NATO will dedicate its Forum, the largest and most important annual gathering to the topic of energy security and critical energy infrastructure protection. This NATO Forum, which is co-sponsored by the Institute for the Analysis of Global Security, will bring together decision-makers at the ministerial level from the alliance and partner countries to assess the problem and examine the potential for the development of new solutions.
- To compensate for the erosion in OPEC's spare capacity, it is critical that major oil consuming countries take steps to insulate their economies from supply disruptions by creating liquidity mechanisms of their own. At its current capacity of 700 million barrels the SPR is sufficient to mitigate supply disruption to the U.S. market but it is not sufficient to tide the global economy over if there is a severe disruption of oil supplies. However, were the SPR expanded beyond its current capacity, and were Europe and Asia encouraged to establish similarly large oil banks, the SPR could serve as a liquidity mechanism to replace that of OPEC's capacity.

While certainly costly in the short term, expanding each of the U.S., European and Asian strategic reserves to contain 1 billion barrels would have the long-term benefit of keeping the market liquid. An expanded SPR also would signal to the terrorists that the oil weapon can no longer be used against oil-consuming countries.

- Because of oil's role in the war on terror, the U.S. should do its utmost to reduce its dependence on petroleum. A coalition of national security and foreign policy think tanks, environmental and religious groups and labor unions called "Set America Free" (www.setamericafree.org) has shown that the U.S. can cut oil imports by half within two decades by deploying available technologies. This \$12 billion "Set America Free" blueprint for energy security enumerates ways to increase fuel efficiency and use domestically produced fuels and existing vehicle technologies. By following the blueprint we will not only increase energy independence for America and the free world but we will also minimize the need to transport oil across the globe and thus reduce our vulnerability to an energy Pearl Harbor.

Mr. Chairman,

If we stay on the present course, America will bleed more dollars each year as its enemies gather strength and the world economy will be at the mercy of oil kamikazes determined to go for its jugular. A smart combination of military and energy policies is our best hope for breaking the economic backbone of the jihadists before they do so to us.

Thank you.